

CLAIMS

1. A method for determining an environmental condition by measuring a biochemical composition of one or more microorganisms exposed to said environmental condition.
2. A method for determining changes in an environmental condition by measuring changes in a biochemical composition of one or more microorganisms exposed to said changes in an environmental condition.
3. A method for determining an environmental condition comprising the steps of measuring a biochemical composition of one or more microorganisms exposed to said environmental condition, comparing said biochemical composition to a predetermined calibration line of a plurality of biochemical compositions of said one or more microorganisms obtained by means of exposure of said one or more microorganisms to a plurality of environmental conditions and determining said environmental condition by means of the position of said biochemical composition on said calibration line.
4. A method according to any one of claims 1-3, wherein said one or more microorganisms comprise bacteria, fungi and/or yeasts.
5. A method according to any one of the preceding claims, wherein said biochemical composition comprises the transcriptome, the proteome and/or the metabolome of a microorganism.
6. A method according to any one of the preceding claims, wherein said biochemical composition is the transcriptome.
7. A method according to claim 5 or 6, wherein said biochemical composition is determined using microarrays.
8. A method for controlling or monitoring an environmental condition, comprising a method according to any one of claims 1-7.

9. A method for controlling a process, comprising a method according to claim 8.
10. Use of a method according to any one of claims 1-9, wherein an environmental condition of a food preparation process, a biofilm formation process, a fermentation process and/or a bioconversion process is determined.
11. Use of a method according to any one of claims 1-9, for determining a chemical and/or biological substance in air and/or aqueous environment.